

COMBINED DECLARATION AND POWER OF ATTORNEY

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled BIOLOGICAL APPLICATIONS OF QUANTUM DOTS, the specification of which:

is attached hereto.
 was filed on September 24, 1998 as Application Serial No. 09/160,454 and was amended on _____
 was described and claimed in PCT International Application No. _____ filed on _____
and as amended under PCT Article 19 on _____

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose all information I know to be material to patentability in accordance with Title 37, Code of Federal Regulations, §1.56.

I hereby claim the benefit under Title 35, United States Code, §119(e)(1) of any United States provisional application(s) listed below:

U.S. Serial No.	Filing Date	Status
60/100,947	September 18, 1998	Pending

I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose all information I know to be material to patentability as defined in Title 37, Code of Federal Regulations, §1.56(a) which became available between the filing date of the prior application and the national or PCT international filing date of this application:

U.S. Serial No.	Filing Date	Status
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I hereby claim foreign priority benefits under Title 35, United States Code, §119 of any foreign application(s) for patent or inventor's certificate or of any PCT international application(s) designating at least one country other than the United States of America listed below and have also identified below any foreign application for patent or inventor's certificate or any PCT international application(s) designating at least one country other than the United States of America filed by me on the same subject matter having a filing date before that of the application(s) of which priority is claimed:

Country	Application No.	Filing Date	Priority Claimed
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I hereby appoint the following attorneys and/or agents to prosecute this application and to transact all business in the Patent and Trademark Office connected therewith:

Eric L. Prahl, Reg. No. 32,590
Y. Rocky Tsao, Reg. No. 34,053
John F. Hayden, Reg. No. 37,640

Frank R. Occhiuti, Reg. No. 35,306
Harold H. Fox, Reg. No. 41,498

Address all telephone calls to HAROLD H. FOX at telephone number (202) 783-5070.

Combined Declaration and Power of Attorney
Page 2 of 2 Pages

Address all correspondence to ERIC L. PRAHL at:

FISH & RICHARDSON P.C.
225 Franklin Street
Boston, MA 02110-2804

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patents issued thereon.

Full Name of Inventor: MOUNGI G. BAWENDI

Inventor's Signature: *Moungi Bawendi*

Date: 3/30/01

Residence Address: Boston, Massachusetts

Citizenship: United States of America

Post Office Address: 263 Commonwealth Ave. #5 Boston, MA 02116

Full Name of Inventor: VIKRAM C. SUNDAR

Inventor's Signature: _____

Date: _____

Residence Address: Stoneham, Massachusetts

Citizenship: India

Post Office Address: 555 Main Street, Stoneham, Massachusetts 02180

Full Name of Inventor: FREDERIC V. MIKULEC

Inventor's Signature: _____

Date: _____

Residence Address: La Jolla, California

Citizenship: United States of America

Post Office Address: 8280 Caminito Sonoma, La Jolla, California 92037

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Page 2 of 2 Pages

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Full Name of Inventor: MOUNGI G. BAWENDI

Inventor's Signature: _____ Date: _____

Residence Address: Boston, Massachusetts

Citizenship: United States of America

Post Office Address: 263 Commonwealth Ave. #5 Boston, MA 02116

Full Name of Inventor: VIKRAM G. SUNDAR

Inventor's Signature:  Date: 04/02/01

Residence Address: Stoneham, Massachusetts

Citizenship: India

Post Office Address: 555 Main Street, Stoneham, Massachusetts 02180

Full Name of Inventor: FREDERIC V. MIKULEC

Inventor's Signature: _____ Date: _____

Residence Address: La Jolla, California

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Full Name of Inventor: MOUNGI G. BAWENDI

Inventor's Signature: _____ Date: _____
Residence Address: Boston, Massachusetts
Citizenship: United States of America
Post Office Address: 263 Commonwealth Ave. #5 Boston, MA 02116

Full Name of Inventor: VIKRAM C. SUNDAR

Inventor's Signature: _____ Date: _____
Residence Address: Stoneham, Massachusetts
Citizenship: India
Post Office Address: 555 Main Street, Stoneham, Massachusetts 02180

Full Name of Inventor: FREDERIC V. MIKULEC

Inventor's Signature:  Date: APRIL 4, 2001
Residence Address: La Jolla, California
Citizenship: United States of America
Post Office Address: 8280 Caminito Sonacha, La Jolla, California 92037



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office
ASSISTANT SECRETARY AND COMMISSIONER
OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

JANUARY 19, 2000

PTAS

CHOATE, HALL & STEWART
ELIZABETH E. NUGENT
53 STATE STREET, EXCHANGE PLACE
BOSTON, MA 02109*

101183285A

5097-2959
S-PRO
04/12/01



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RECORDATION DATE: 10/25/1999

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NUMBER OF PAGES: 5

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:

BAWENDI, MOUNGI G.

DOC DATE: 01/26/1999

ASSIGNOR:

MIKULEC, FREDERICK V.

DOC DATE: 01/26/1999

ASSIGNOR:

SUNDAR, VIKRAM C.

DOC DATE: 01/26/1999

ASSIGNEE:

MASSACHUSETTS INSTITUTE OF
TECHNOLOGY
77 MASSACHUSETTS AVENUE
CAMBRIDGE, MASSACHUSETTS 02142

SERIAL NUMBER: 09160454
PATENT NUMBER:

FILING DATE: 09/24/1998
ISSUE DATE:

010328/0390 PA 2

TARA WASHINGTON, EXAMINER
ASSIGNMENT DIVISION
OFFICE OF PUBLIC RECORDS

MRD 10-25-99

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Mark if additional names of conveying parties attached Execution Date
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1/26/99

Name (line 1) Moungi G. BawendiName (line 2) Frederick V. Mikulec**Second Party**Name (line 1) Vikram C. SundarExecution Date
Month Day Year

1/26/99

Name (line 2) **Receiving Party**

Mark if additional names of receiving parties attached

Name (line 1) Massachusetts Institute of Technology

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Mail documents to be recorded with required cover sheet(s) information to:
Commissioner of Patents and Trademarks, Box Assignments, Washington, D.C. 20231

Correspondent Name and Address

Area Code and Telephone Number **(617) 248-5000**

Name **Elizabeth E. Nugent**

Address (line 1) **Choate, Hall & Stewart**

Address (line 2) **53 State Street, Exchange Place**

Address (line 3) **Boston, MA 02109**

Address (line 4)

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Enter the total number of pages of the attached conveyance document

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Patent Application Number(s)

09/160,454

Patent Number(s)

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If this document is being filed together with a new Patent Application, enter the date the patent application was signed by the first named executing inventor.

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Elizabeth E. Nugent

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Elizabeth E. Nugent, Reg. 43,859

Signature

10/19/99

Date

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Assistant Commissioner For Patents, Washington, D.C. 20231 on 10-22-99

Sarah E. Nugent

ASSIGNMENT

WHEREAS, We, **Moungi G. Bawendi** of Boston, Massachusetts; **Frederick V. Mikulec** of Somerville, Massachusetts; and **Vikram C. Sundar** of Somerville, Massachusetts having invented a certain improvement in a **BIOLOGICAL APPLICATIONS OF QUANTUM DOTS** for which We have made application for a United States Patent, said application filed on September 24, 1998, and having a United States Serial No. 09/160,454;

WHEREAS, Massachusetts Institute of Technology a non-profit educational institution having offices at 77 Massachusetts Avenue, Cambridge, MA 02142 and its successors and assigns (collectively hereinafter called "the Assignee"), is desirous of acquiring my entire right, title and interest in and to the invention, and in and to the said application and any Letters Patent that may issue thereon;

NOW THEREFORE, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledge, I do hereby sell assign and transfer unto said ASSIGNEE, its successors, assigns and legal representatives the full and exclusive right, title and interest in and to said invention and in and to said Applications and all patents which may granted therefore, and all divisions, reissues, substitutions, continuations, continuations-in-part and extensions thereof; and I hereby authorize and request the Commissioner of Patents and Trademarks to issue all patents for said invention, or patents resulting therefrom, insofar as my interest is concerned, to the said ASSIGNEE of my entire right, title and interest.

I also hereby sell and assign to said ASSIGNEE, its successors, assigns and legal representatives the full and exclusive rights, title and interest to the invention disclosed in said Applications throughout the world, including the right to file applications and obtain patents, utility models, industrial models and designs for said invention in its own name throughout the world, including all rights of priority, all rights to publish cautionary notices reserving ownership of said invention, and all rights to register said invention in appropriate registries; and I further agree to execute any and all powers of attorney, applications, assignments, declarations, affidavits, and any other papers in connection therewith necessary to perfect such rights, title and interest in ASSIGNEE, its successors, assigns and legal representatives.

I hereby further agree that I will communicate to said ASSIGNEE, or to its successors, assigns and legal representative, any facts known to me respecting any improvements; and, at the expense of said ASSIGNEE, to testify in any legal proceedings, sign all lawful papers, execute all divisional, continuation, continuation-in-part, reissue and substitute applications, make all lawful oaths, and generally do everything possible to vest title in said ASSIGNEE and to aid said ASSIGNEE, its successors, assigns and legal representatives to obtain and enforce proper protection for said invention in all countries.

IN WITNESS WHEREOF, I hereto set my hand and seal at Cambridge,
MA this 26 day of Jan, 1998.

My Obs
 Moungi G. Bawendi

STATE OF Mass.

ss.

COUNTY OF Middlesex

Before me this 26th day of Jan, 1998, personally appeared Moungi G. Bawendi known to me to be the person whose name is subscribed to the foregoing Assignment and acknowledged that he executed the same as his free act and deed for the purposes therein contained.



Maria Nargi
 NOTARY PUBLIC

My Commission Expires: 11/10/2000

IN WITNESS WHEREOF, I hereto set my hand and seal at CAMBRIDGE,
MASSACHUSETTS this 26 day of JAN, 1998.

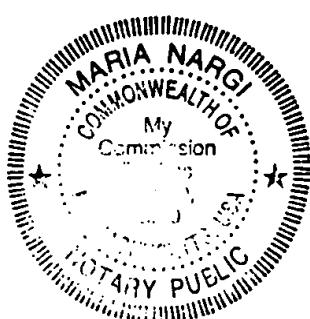
Frederick V. Mikulec
 Frederick V. Mikulec

STATE OF Mass

ss.

COUNTY OF Middlesex

Before me this 26th day of Jan, 1998, personally appeared Frederick V. Mikulec known to me to be the person whose name is subscribed to the foregoing Assignment and acknowledged that he executed the same as his free act and deed for the purposes therein contained.



Maria Nargi
 NOTARY PUBLIC EXP 11/10/2000

[Notary's Seal Here]

My Commission Expires

IN WITNESS WHEREOF I here-to set my hand and seal at Wellesley
this 26 day of January, 1998.

Vikram C. Sundar

STATE OF MASS.

ss.

COUNTY OF Middlesex

Before me this 26th day of Jan ⁹ 1998, personally appeared
Vikram C. Sundar known to me to be the person whose name is subscribed to the foregoing
Assignment and acknowledged that he executed the same as his free act and deed for the purposes
therein contained.

Maria Parizi

NOTARY PUBLIC

[Notary's Seal Here]

My Commission Expires: 11/10/2000

